UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,157	03/31/2004	Michael Masterov	07754.046001	8197

7590 04/14/2009

Jeffrey S Bergman
OSHA LIANG LLP
1221 McKinney Street
Suite 2800
Houston, TX 77010

EXAMINER	
GREENE, DANIEL LAWSON	
ART UNIT	**PAPER NUMBER**
3694	
MAIL DATE	**DELIVERY MODE**
04/14/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/815,157
Filing Date: March 31, 2004
Appellant(s): MASTEROV ET AL.

Jeffrey S. Bergman

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/31/2008 appealing from the Office action mailed 4/15/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,873,840	ELLIS	3-1975
4,763,343	YANAKI	8-1988
5,327,029	ERICSON ET AL.	7-1994

3,045,123	FROMMER	7-1962
5,905,262	SPANSWICK	5-1999
6,889,152	MORE	5-2005

EXPERIMENT 2-8, THE PHOTO-ELECTRIC EFFECT, 2-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

9A. Claims 1, 2, 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (U.S. PATENT 3,873,840) in view of either Yanaki (U.S. PATENT 4,763,343) or Ericson et al. (U.S. PATENT 5,327,029).

Regarding claim 1, Ellis clearly discloses a method for measuring high-energy radiation flux (abstract), comprising:

applying a voltage pulse (see, for example, Col. 1 lines 10-44, "pulse mode") for a predetermined time between electrodes in an ion chamber, wherein the ion chamber is filled with a gas capable of forming charged ions by high-energy radiation;

measuring an ion current signal related to ion currents induced by the voltage pulse while the voltage pulse is being applied to the electrodes (see, for example, col. 4 lines 54-60); and

outputting the result of the magnitude of the high-energy radiation flux (see, for example, claim 1, Col. 30 line 55 through Col. 31 line 8).

Ellis (patented 3/25/1975) teaches that it is old and well known (2008 – 1975 = 33 years) to subtract one signal from another in order to arrive at the underlying desired signal in, for example, Col. 5. It is considered that Ellis inherently measures and removes

the leakage current because he is subtracting the gamma signal from the neutron signal. since both signals contain a leakage current then Ellis is inherently subtracting said leakage current as well.

However, if appellant is of the opinion that Ellis does not explicitly disclose measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal and determining a magnitude of the high-energy radiation flux dependent on the ion current signal and the leakage current signal after measuring the leakage current signal, then either Yanaki (see, for example, Col. 13 lines 41-65) or Ericson et al. (Col. 5 lines 48-50) can be relied upon to show that the subtraction of leakage currents is required to provide an accurate reading. That is, both Ericson et al. and Yanaki discuss "leakage current" and the subtraction of the leakage current from the sensor signal to ensure that only the incident radiation is being measured. Note that Yanaki discloses that the subtraction of the leakage current is constantly provided with an R-C network that removes noise and leakage current.

At the time of the invention it would have been obvious to one of ordinary skill in the art to measure the leakage current AFTER the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal and to determine the magnitude of the high-energy radiation flux dependent on the ion current signal and the leakage current signal after measuring the leakage current signal for the benefit of providing an accurate measurement because "All leakage currents at the input node add

to or subtract from the input signal, directly contributing an input error". (Ericson et al. Col. 5 line 48-50.)

Regarding claim 2 and the limitation wherein the determining the magnitude of the high-energy radiation flux comprises subtracting the leakage current signal from the ion current signal, again, Ericson et al. clearly discloses that leakage current must be removed to prevent input error.

Claim 4, i.e. the limitation "determining a gain of an amplifier of the ion current signal and the leakage current signal" is inherently performed by Ellis because if the gain were not determined then the detector would never provide a useable output. That is, that the detector would provide no output without an amplifier gain and would therefor be useless.

Regarding claims 5 and 9 and the limitation wherein the determining the gain of the amplifier comprises applying a ramping voltage between the electrodes in the ion chamber, Ellis inherently performs this step because a pulse is a ramped voltage. That is, a "pulse" inherently includes a "ramp" because it is impossible to prevent said pulse from initially starting as a ramping voltage. That is, there will inherently be some sort (no matter how small) of ramping voltage at the beginning and end of the pulse as it is impossible to prevent such from naturally occurring due to resistance, inductances and capacitances inherently in electrical circuitry.

Claim 6 and the limitation wherein one of a magnitude of the ion current signal and a magnitude of the leakage current signal is adjusted dependent on the gain of the amplifier is inherently disclosed because the readout of the detector is dependent on the

gain of the amplifier and therefore in order to remove the input error, i.e. leakage current the signal must be adjusted according to the gain of the amplifier. That is, the actual amount of the leakage current must be removed according to the gain of the amplifier otherwise the improper amount of leakage current will be removed.

Regarding claim 7 and the limitation wherein the subtracting the leakage current signal from the ion current signal is dependent on one of a magnitude-adjusted ion current signal and a magnitude-adjusted leakage current signal, again, leakage current is inherent to systems of this kind. It must be removed in order to provide an accurate signal. If the gain of an amplifier is adjusted, then its signal to noise ratio (comparable to leakage current) will be affected and must be accounted for and removed.

Regarding claim 8 and the limitation further comprising determining a gain of an amplifier of the ion current signal and the leakage current signal, wherein the magnitude of the high-energy radiation flux is proportional to the ion current signal and the gain of the amplifier, it must be appreciated that the limitation "determining a gain of an amplifier" reads on "displaying the output of the detector" because the gain of the amplifier is what drives the meter. That is. the gain of the amplifier produces a signal that is displayed by the detector output. That displayed output is proportional to the flux incident upon the detector because this is what the system was designed for, i.e. displaying the strength of a flux.

9B. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of either Yanaki or Ericson et al. as applied to claims 1,2 and 4-9 above and

further in view of any of Frommer (U.S. PATENT 3,045,123), Experiment 2-8, or Spanswick (U.S. PATENT 5,905,262).

Ellis as modified above discloses appellant's invention as explained above.

If appellant is of the opinion that Ellis does not disclose zeroing out the detector before, during or after taking measurements then resort may be had to any of Frommer, Experiment 2-8, or Spanswick to show it is old and well known to zero out a detector in order to negate the effects of current leakage in said detectors.

At the time of the invention it would have been obvious to one of ordinary skill in the art to zero out the detector of Ellis as modified as taught to be old and advantageous by any of Frommer, Experiment 2-8, or Spanswick for the benefit of at least providing an accurate reading of the measurement to be taken.

It is considered obvious to zero out the detector at ANY POINT in order to ensure the reading is accurate. Further it is considered obvious that one would want to zero out the detector AFTER the measurement for the benefit of compensating for any drift that occurred since the last time the detector was zeroed out.

9C. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of either Yanaki or Ericson et al. as applied to claims 1, 2, and 4-9 above, and further in view of More (US Patent 6,889,152).

Ellis as modified discloses appellant's invention as explained above.

If appellant is of the opinion that Ellis as modified does not disclose a ramping current or voltage applied to the electrodes to determine a gain then resort may be had to More to show such is an obvious and desirable thing to do.

More teaches a method for compensating circuits in high-resolution measurements. It is noted that while the embodiments disclosed in More deal with "temperature" measurements, these embodiments are only exemplary. The teachings of More would apply to any high sensitivity voltage measuring circuit (column 1, lines 25-36). Specifically **More teaches the importance of accounting for changes in amplifier gain in a voltage detection circuit. (Known in the nuclear art as "drift") By applying known inputs to the amplifier, the gain of the amplifier can be ascertained and thus corrected for (column 67, lines 10-21).** The ramping voltage would be an obvious variant of a series of known inputs.

Thus, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to apply a ramping voltage to the two electrodes to determine the amplifier gain so as account for gain variations over time, thereby allowing correction of the detected signal for high sensitivity measurements, as taught by More.

leakage can be defined as

Physics, Electricity. the loss of all or part of a useful agent, as of the electric current that flows through an insulator **(leakage current)** or of the magnetic flux that passes outside useful flux circuits **(leakage flux)**.

Drift is defined as

Electronics.

a. a gradual change in some operating characteristic of a circuit, tube, or other electronic device, either during a brief period as an effect of warming up or during a long period as an effect of continued use.

b. the movement of charge carriers in a semiconductor due to the influence of an applied voltage.

9D. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of either Yanaki or Ericson et al. and further in view of any of Frommer, Experiment 2-8, or Spanswick as applied to claims 1, 2, and 4-9 above, and further in view of More (US Patent 6,889,152).

Ellis as modified above discloses appellant's invention as explained above. If appellant is of the opinion that Ellis as modified does not disclose a ramping current or voltage applied to the electrodes to determine a gain then resort may be had to More.

More teaches a method for compensating circuits in high-resolution measurements. It is noted that while the embodiments disclosed in More deal with temperature measurements, these embodiments are only exemplary. The teachings of More would apply to any high sensitivity voltage measuring circuit (column 1, lines 25-36). Specifically More teaches the importance of accounting for changes in amplifier gain in a voltage detection circuit. By applying known inputs to the amplifier, the gain of the amplifier can be ascertained and thus corrected for (column 67, lines 10-21). The ramping voltage would be an obvious variant of a series of known inputs.

Thus, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to apply a ramping voltage to the two electrodes to determine the amplifier gain so as account for gain variations over time, thereby allowing correction of the detected signal for high sensitivity measurements, as taught by More.

(10) Response to Argument

10A. Appellant argues on page 7 section VII.A.(1):

"Measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal is not shown or suggested.

Applicant respectfully asserts that Ellis, Yanaki, and Ericson, whether taken separately or in combination, fail to show or suggest at least "measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal," as required by independent claim 1."

In fact, Ellis teaches nothing more than a gamma signal subtracted from a signal including the gamma signal and neutron signal. See Ellis, Abstract, column 5, lines 6-9 and 17- 21. Thus, Ellis not only fails to show or suggest "measuring a leakage current signal" but also fails to show a specific way or timing of "measuring a leakage current signal" as claimed.

The Examiner alleges that Ellis inherently teaches measuring and removing the leakage current because Ellis teaches subtracting a gamma signal from a neutron signal. Thus, the Examiner alleges that because both a gamma signal and a neutron signal contain a leakage current, Ellis subtracts the leakage current. See Office Action dated April 15, 2008, at page 3. Applicant respectfully disagrees.

As explained above, Ellis teaches nothing more than subtracting a gamma signal from a signal that has both a gamma signal and a neutron signal. Applicant respectfully asserts that subtracting one signal from another and subtracting the leakage current do not necessarily or inherently lead to measuring a leakage current, as required by independent claim 1, because it would be clear to a skilled artisan that, for example, a noise signal may be removed by a noise filter without measuring the noise signal.

10A. Response:

A review of claim 1 clearly shows that the preamble concludes with the limitation "comprising", which means the claim is directed towards AT LEAST those limitations claimed. Ellis, inter alia, measures the leakage current TWO times, one time for each signal. Subtraction of the gamma signal inherently includes the leakage current, because the leakage current was measured along with the gamma signal.

10B. Appellant argues on page 8 section VII.A.(2):

"(2) Yanaki fails to supply that which Ellis lacks and expressly teaches away from the claimed invention. Yanaki fails to supply that which Ellis lacks. In fact, Yanaki is

completely silent with respect to the above limitation of independent claim 1, and Yanaki expressly teaches away from the claimed invention.

Specifically, Yanaki clearly discloses afilter for removing noise. See Yanaki, column 13, lines 60-66. Thus, Yanaki discloses removing, rather than measuring a noise signal as recited in claim 1. It is clear to a skilled artisan that a noise filter removes a noise signal, but does not measure a noise signal. As the Board is aware, a prima facie case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. See MPEP § 2145. As noted, not only does Yanaki fail to disclose measuring a signal, Yanaki discloses removing the signal, making it impossible to measure."

10B. Response:

Yanaki clearly teaches removing leakage current with no ionization present as shown by the reproduction of Col. 13, lines 60-64 immediately below:

> capacitor in parallel with a large resistor. This filter removes any noise spikes, and any current which leaks from the sensor with no ionization present, which might negatively affect integrator 103 which receives the

Accordingly, one of ordinary skill in the art would have known to subtract the leakage current when no ionization is present.

10C. Appelant argues on pages 9-10 section VII.A.(3):

"Ericson fails to supply that which Ellis and Yanaki lack.

Applicant respectfully asserts that Ericson fails to supply that which Ellis and Yanaki lack.

In fact, Ericson is completely silent with respect to "measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal," as required by independent claim 1.

Specifically, Ericson merely discloses that a leakage current may be included in an input signal, and, thus, the input devices are carefully selected. See Ericson, column 5, lines 49-53. Then, Ericson merely discloses that a capacitor is used to minimize a leakage current to the input node. See Ericson, column 6, lines 25-26. Thus, it is clear to a skilled artisan that Ericson is completely silent with respect to measuring a leakage current at a particular timing as claimed.

In view of above, Ellis, Yanaki, and Ericson, whether taken separately or in combination, fail to show or suggest at least "measuring a leakage current signal after the voltage pulse has been turned off, after ion transport has stopped, and after measuring the ion current signal," as required by independent claim 1."

10C. Response:

Ericson, Col. 5, lines 48-50 clearly teach that "all leakage currents at the input node add or subtract from the input signal, directly contributing an input error". Accordingly, one of ordinary skill in the art, at the time the invention was made, would have known that leakage current would have to be removed at some point in the measurement.

10D. Appelant argues on pages 10-12 section VII.A.(4):

"Applicant respectfully asserts that the Examiner's articulation of the reason(s) why the claimed invention would have been obvious is improper in view of the Supreme Court's recent decision in KSR International Co. v. Teleflex Inc., 550 U.S. __, __., 82 USPQ2d 1385, 1395-97 (2007). In KSR, the Supreme Court reiterated the primacy of the analytical framework provided in Graham v. John Deer Co., 383 U.S. 1, 148 USPQ 459 (1966).

In the present case, Applicant respectfully asserts that the Examiner's analysis constitutes mere conclusory statements, rather than articulated reasoning with rational underpinning, as the Supreme Court requires for a finding of obviousness. See KSR Int'l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385, 1396 (2007). Because the Examiner has failed to proffer any analysis under the factual inquiries articulated by the Supreme Court, a finding of obviousness is improper. Simply put, rather than provide an explanation as to why a skilled artisan would modify the prior art, the Examiner merely makes conclusory statements.

In view of above, Ellis, Yanaki, and Ericson, whether taken separately or in combination, fail to show or suggest the invention as recited in independent claim 1. Also, the Examiner's articulation of the reasons why the claimed invention would have been obvious is improper. Accordingly, independent claim 1 is patentable over Ellis, Yanaki, and Ericson. Dependent claims are allowable at least by virtue of their dependencies. Reversal of the rejection is respectfully requested."

10D. Response:

The Examiner clearly articulated that Ellis is inherently subtracting the leakage current on the bottom of page 3 of the final office action mailed April 15, 2008 and then went on to show how both Yanaki and Ericson et al. also teach the removal of leakage current. That is, both Yanaki and Ericson et al. were cited as additional evidence of what is old and well known in the art, i.e. it is old and well known to remove the leakage current.

10E. Appelant argues on pages 13-14 section VII.B.(1&2):

(1) Ellis, Yanaki, and Ericson fails to show or suggest the invention recited in independent claim 1. As discussed above, Ellis, Yanaki, and Ericson fail to show or suggest the invention recited in independent claim 1.

(2) Zeroing out a detector cannot be equated with the invention recited in independent claim 1.

Applicant respectfully asserts that a mere zeroing out a detector cannot be equated with the invention recited in independent claim 1.

The Examiner alleges that Ellis, Frommer, Experiment 2-8, or Spanswick discloses a procedure of zeroing out of a detector, and the procedure corresponds to the claimed invention. See Office Action dated April 15, 2008, at page 7.

However, even assuming arguendo that it is old and well known to zero a detector before using it as alleged by the Examiner, the procedure of zeroing out a detector does not show or suggest at least the invention recited in independent claim 1.

Applicant respectfully asserts that the procedure of zeroing out necessarily cannot show or suggest at least the specific order of the steps, (a) measuring an ion current signal induced by the voltage pulse, then, (b) measuring a leakage current signal after the voltage pulse has been turned off and after ion transport has stopped, and, then, (c) determining magnitude of the high- energy radiation flux based on the ion current signal and the leakage current signal, as required by independent claim 1.

One skilled in the art would readily recognize that the procedure of zeroing out is conducted as follows: (i) a detector may be affected by a leakage current signal before applying a voltage to a circuit to be measured, then, (ii) the position of zero showed by the detector is adjusted, and, then, (iii) an ion current signal of the circuit is measured by the detector.

Thus, a skilled artisan would readily recognize that, in the procedure of zeroing out a detector, an ion current signal, which does not include a leakage signal, is measured

because the effect of the leakage current signal is removed when zeroing out the detector. Also, a magnitude of the high-energy radiation flux is determined only based on the ion current signal. Further, a leakage signal may appear on the detector before applying a voltage to a circuit to be measured.

Therefore, the procedure of zeroing out a detector necessarily cannot show or suggest the specific order of the steps, (a) measuring an ion current signal induced by the voltage pulse, then, (b) measuring a leakage current signal after the voltage pulse has been turned off and after ion transport has stopped, and, then, (c) determining magnitude of the high-energy radiation flux based on the ion current signal and the leakage current signal."

10E. Response:

Per appellants own admission, One skilled in the art would readily recognize that the procedure of zeroing out is conducted as follows: (i) a detector may be affected by a leakage current signal before applying a voltage to a circuit to be measured, then, (ii) the position of zero showed by the detector is adjusted, and, then, (iii) an ion current signal of the circuit is measured by the detector.

Accordingly, after this initial measurement, the detector has been calibrated. So when the user then measures the output of a second detector, or measures the output from the same detector a second time, then the magnitude of the high energy flux is dependent on the ion current signal and the leakage current signal after measuring the leakage current signal. That is, the practice of zeroing out a detector ensures that the magnitude of the measured phenomenon is based upon the phenomenon itself and not leakage occurring within the detector itself and the act of using the zeroed out detector a second time can be understood to disclose the claimed invention.

Another way to look at this is to break down claim 1. Currently claim 1 reads as follows with the numbers being added by the Examiner to apparently show the desired order applicant wishes the method to set forth.

"A method for measuring high-energy radiation flux, comprising:

1. applying a voltage pulse for a predetermined time between electrodes in an ion chamber, wherein the ion chamber is filled with a gas capable of forming charged ions by high-energy radiation;

2. measuring an ion current signal related to ion currents induced by the voltage pulse while the voltage pulse is being applied to the electrodes;

3. measuring a leakage current signal after the voltage pulse has been turned off and after ion transport has stopped, and after measuring the ion current signal;

4. determining a magnitude of the high-energy radiation flux dependent on the ion current signal and the leakage current signal after measuring the leakage current signal; and

5. outputting the result of the magnitude of the high-energy radiation flux. "

<u>The claimed method may also be understood in the following manner:</u>

"A method for measuring high-energy radiation flux, comprising:

3. measuring a leakage current signal after the voltage pulse has been turned off and after ion transport has stopped ***<u>(from the previous measurement pulse and subsequent ion transport)</u>***;

6. ZEROING OUT THE DETECTOR TO ENSURE THE READING IS ZERO WITH ZERO INPUT

1. applying a voltage pulse for a predetermined time between electrodes in an ion chamber, wherein the ion chamber is filled with a gas capable of forming charged ions by high-energy radiation;

2. measuring an ion current signal related to ion currents induced by the voltage pulse while the voltage pulse is being applied to the electrodes;

4. determining a magnitude of the high-energy radiation flux dependent on the ion current signal and the leakage current signal ***(BECAUSE THE DETECTOR HAS BEEN ZEROED IN A PREVIOUS STEP AFTER THE PREVIOUS MEASUREMENT);*** and

5. outputting the result of the magnitude of the high-energy radiation flux. "

Again, it appears applicant is merely attempting to claim the step of zeroing out a meter after taking one measurement and before taking another measurement.

Further, there is no novelty in subtracting the leakage current from a measurement AFTER the measurement instead of BEFORE the measurement because it is old and well known that the leakage current must be accounted for and subtracted from the readings of the detector to ensure that it is giving an accurate reading.

Again, the limitation "after ion transport has stopped" reads on the ion transport of the previous measurement.

10F. Appelant argues on pages 14-15 section VII.B.(3):

"(3) The Examiner is using impermissible hindsight in rejecting the claims as obvious over the applied prior art.

Applicant respectfully asserts that the Examiner has not provided any evidentiary support with respect to his analysis and that unsupported statements and conclusions of obviousness are considered inadmissible hindsight. See, e.g., In re Geiger, 2 USPQ2d 1276 (Fed. Cir. 1987), Panduit Corp. v. Dennison Mfg. Co., 1 USPQ2d 1593 (Fed. Cir. 1987), In re Gordon, 221 USPQ 1125 (Fed. Cir. 1984), Ex parte Clapp, 227 USPQ 972 (Pat. Off. Bd. App. & Inter. 1985), Ex parte Shepard and Gushue, 188 USPQ 537 (Pat. Off. Bd. App. t974).

In fact, the Examiner merely alleges "it is considered obvious to zero out the detector at ANY POINT in order to ensure the reading is accurate" and "it is considered obvious that one would want to zero out the detector AFTER the measurement for the benefit of compensating for any drift that occurred since the last time the detector was zeroed out." See Office Action dated April 14, 2008, at page 7.

However, none of the Examiner's statements are supported by the prior art, and the statements are, therefore, without legal basis.

In view of above, Ellis, Yanaki, Ericson, Frommer, Experiment 2-8, and Spanswick, whether taken separately or in combination, fail to show or suggest the invention as recited in independent claim 1. Also, the Examiner is using impermissible hindsight in rejecting the claims as obvious over the applied prior art. Accordingly, independent claim 1 is patentable over Ellis, Yanaki, Ericson, Frommer, Experiment 2-8, and Spanswick. Dependent claims are allowable at least by virtue of their dependencies. Reversal of the rejection is respectfully requested."

10F. Response:

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

As shown by the art of record, "leakage current" is a notoriously old and well known phenomenon that has been compensated for since the creation of detectors that leak. Applicant's allegations of impermissible hindsight are simply untenable as the detector art is replete with various manners of eliminating leakage current.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Daniel Lawson Greene Jr./

Conferees:

/Rick Palabrica/

Primary Examiner, Art Unit 3663

/Vincent Millin/

Appeals Practice Specialist